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Fishery Products

Annual Report

2007

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Report Highlights: The fisheries sector plays an important role in the national economy, accounting for about 6.1 percent of Gross Domestic Product (GDP) in 2006 and earning almost \$3.4 billion in export revenues. Total aquatic production increased almost 7% in 2006, while aquaculture production increased 14.6%. A strong export market continues to drive production, which is expected to reach 3.8 million metric tons in 2007. Exports are expected to reach \$3.6 billion in 2007.

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SITUATION AND OUTLOOK

Vietnam, with a coastline of over 3,260 kilometers (km) and more than 3,000 islands and islets scattered offshore, plus up to 2,860 rivers and estuaries, has been geographically endowed with ideal conditions for the thriving fishery sector which currently exists. For centuries, the Mekong River Delta in the south and the Red River Delta in the north have been used for wild catch fishing as well as extensive fish farming. The Mekong River Delta, one of the most productive fishery zones, covers an area of about 40,000 square km. In addition, there are about 4,200 square km of rivers, lakes and other natural bodies of water further inland, which swell to an additional 6,000 square km during periods of seasonal flooding.

The fisheries sector plays an important role in the national economy, accounting for about 6.1 percent of Gross Domestic Product (GDP) in 2006 and earning almost \$3.4 billion in export revenues. Production in the fisheries sector grew at an average rate of 10.51% from 1991 to 2000, and 12.14% from 2001 to 2005. Much of this growth in production can be attributed to continued expansion in aquaculture, which increased from a 26 percent share of the sector in 2000 to 46 percent in 2006. A strong export market is the driving force behind the growth in aquaculture, but there is also a growing domestic market as incomes improve and local demand increases.

The bulk of Vietnam's fishery exports are bound for Japan, Taiwan, South Korea, Hong Kong, the United States and the European Union. With a sixteen-fold increase in fishery exports since the 1990's, Vietnam now ranks among the top ten seafood exporters in the world.

Industry targets for 2007 include total production output of 3.8 million metric tons, 2 million of which will be caught aquatic products, and 1.8 million being aquaculture. Increases in shrimp and catfish may only be minimal due to stresses on the environment as well as expected lower rainfall. Fisheries export target for 2007 is set at \$3.6 billion.

STATISTICAL TABLES

Table 1: Total Edible Fishery Products, Export Trade Matrix

Export Trade Matrix

Country	Vietnam	
Commodity	Total Edible Fishery Products	
Time Period	Jan-Dec.	Units: MT
Exports for:	2005	2006
U.S.	91643	98883
Others	Others	
Japan	127721	219967
EU	130699	123889
Korea	75469	84903
ASEAN	48268	60335
China	47519	58705
Taiwan	34643	48470
Australia	21757	30623
Russia	13130	24303
Total for Others	499206	651195
Others not Listed	36072	61432
Grand Total	626921	811510

Table 2: Shrimp, Export Trade Matrix

Export Trade Matrix

Country	Vietnam	
Commodity	Frozen Shrimps	
Time Period	Jan-Dec.	Units: MT
Exports for:	2005	2006
U.S.	41443	35414
Others	Others	
Japan	66899	66164
EU	17722	21265
Australia	7313	8584
Taiwan	7195	5818
Canada	4898	5279
China	3966	5131
South Korea	3265	4275
ASEAN	3161	2414
Switzerland	1452	1452
Total for Others	115871	120382
Others not Listed	1929	2650
Grand Total	159243	158446

Table 3: Catfish Export Trade Matrix
Export Trade Matrix

Country	Vietnam		
Commodity	Catfish		
Time Period	Jan-Dec.	Units:	MT
Exports for:	2005		2006
U.S.	14760	U.S.	24281
Others		Others	
European Union	55178	European Union	123212
ASEAN	22019	Russia	42779
China	16353	ASEAN	28515
Australia	9657	China	17678
Mexico	6557	Australia	10149
Russia	3049	Mexico	9829
Total for Others	112813		232162
Others not Listed	13130		30159
Grand Total	140703		286602

Table 4: Total Fishery Products Import Trade Matrix
Import Trade Matrix

Country	Vietnam		
Commodity	Total Edible Fishery Products		
Time Period	Jan-Dec.	Units:	US\$ Million
Exports for:	2005		2006
U.S.	5.317518	U.S.	7.18161
Others		Others	
India	14.71518	Norway	10.8619
China	10.48349	India	10.67921
Singapore	9.559363	Thailand	10.67616
Thailand	9.017899	Canada	8.748766
Canada	7.793604	Malaysia	8.138328
Malaysia	7.562518	Singapore	6.716756
Norway	5.51428	China	6.096946
Denmark	5.090733	Chile	5.691302
Chile	3.45545	Denmark	3.86024
Spain	1.260953	Spain	2.040992
Total for Others	74.45347		73.5106
Others not Listed	2.670079		15.12432
Grand Total	82.44106		95.81654

Table 5: Vietnam's Shrimp Exports by Destination

Country	2005		2006		2007 (Jan – Mar)	
	Volume (MT)	Value (\$ million)	Volume (MT)	Value (\$ million)	Volume (MT)	Value (\$ million)
Japan	66,899	549.86	66,164	581.2	5,287	74.694
United States	41,443	434.19	35,414	422.9	7,764	69.918
EU	17,722	125.14	21,265	154.3	2,930	21.898
<i>of which:</i> Germany	3,381	23.12	4,362	31.42	892	7.269
Belgium	3,503	26.03	3,307	25.30	341	2.166
UK	3,065	24.09	2,826	23.42	0	
Australia	7,313	56.15	8,584	76.7	949	10.314
Canada	4,898	47.60	5,279	55.6	1,050	13.053
South Korea	3,265	20.95	5,131	37.6	1,567	12.106
China	3,966	28.99	4,275	34.5	993	8.395
<i>of which:</i> Hong Kong	2,562	19.17	2,880	23.54	670	5.62
Taiwan	7,195	52.74	5,818	39.4	1,279	9.423
ASEAN	3,161	27.73	2,414	22.1	928	10.752
<i>of which:</i> Malaysia	966	11.05	1,014	11.30	556	7.71
Switzerland	1,452	14.07	1,452	15.2	314	3.518
Others	1,929	14.44	2,650	21.1	310	2.789
Total	159,243	1,372	158,446	1,461	23,371	236.86

Source: Vietnam Association of Seafood exporters and producers (VASEP)

Table 6: Vietnam's Catfish Exports by Destination

Country	2005		2006		2007 (Jan – Mar)	
	Volume (MT)	Value (\$ million)	Volume (MT)	Value (\$ million)	Volume (MT)	Value (\$ million)
EU	55,178	139.38	123,212	343.4	35,853	98.73
<i>of which:</i> Spain	12,390	33.39	25,090	72.73	7,846	22.78
Poland	5,671	13.10	27,328	66.62	9,745	22.91
Holland	4,466	11.49	22,108	65.25	0	
Russia	3,049	5.59	42,779	83.2	13,819	27.35
ASEAN	22,019	40.59	28,515	62.8	7,318	15.97
<i>of which:</i> Singapore	9,759	15.97	11,525	22.07	3,358	7.20
Malaysia	5,329	8.55	9,570	19.29	1,801	3.15
Thailand	4,883	12.02	5,879	18.12	1,274	3.97
United States	14,760	35.25	24,281	72.9	3,810	12.78
China	16,353	32.39	17,678	37.4	4,385	10.07
<i>of which:</i> Hong Kong	14,561	28.56	16,599	34.96	4,125	9.52
Australia	9,657	26.18	10,149	31.0	2,239	7.594
Mexico	6,557	16.82	9,829	28.3	1,539	4.598
Others	13,130	31.95	30,159	77.8	11,888	29.254
Total	140,703	328.15	286,602	736.87	80,851	206.339

Source: Vietnam Association of Seafood Exporters and Producers (VASEP)

Table 7: Vietnam's Tuna Exports by Destination

Country	2005		2006		2007 (Jan- Mar)	
	Volume (MT)	Value (\$ million)	Volume (MT)	Value (\$ million)	Volume (MT)	Value (\$ million)
United States	11,570	33.31	17,343	48.4	3,400	11.06
EU	7,846	20.69	14,045	33.1	3,995	10.18
<i>of which:</i> Germany	2,266	4.18	4,633	8.62	1,305	2.32
Holland	1,262	7.51	2,009	7.91		
Spain	1,085	1.82	2,002	4.20	476	1.63
Italy					449	1.44
Japan	3,918	13.30	3,789	12.7	1,356	4.90
Israel	1,243	3.43	890	2.8	63	0.32
Taiwan	1,648	2.70	2,093	3.7	435	0.755
China	629	1.31	894	2.6	314	1.23
<i>of which:</i> Hong Kong	555	0.96	715	1.27	202	0.35
ASEAN	645	1.03	657	1.6	251	0.69
<i>of which:</i> Thailand	454.34	0.87	398	0.79		
Indonesia					203	0.43
Canada	321	0.91	606	1.5	280	0.789
Lebanon	274	0.56	502	1.1	225	0.536
Others	1,668	3.94	4,003	9.6	1,357	3.616
Total	29,761	81.196	44,822	117.133	11,676	34.076

Source: Vietnam Association of Seafood Exporters and Producers (VASEP)

Table 8: Vietnam's Tariff Rate for Principal Fisheries Imports from WTO members

HS code	Product	Bound rate at date of WTO accession (%)	Final bound (%)	Implementation Year
0301	Live fish			
03019100	--Trout (<i>Salmo trutta</i>)	30	20	2010
0302	Fish, fresh or chilled, excluding fish fillets and other fish meat of heading 03.04:			
03021100	Salmonidae, excluding livers and roes: Trout <i>Salmo trutta</i>	30	10	2014
03021200	Pacific Salmon, Atlantic salmon (<i>Salmo salar</i>) and Danube salmon (<i>Hucho hucho</i>)	30	10	2012
03023100; 03023200; 03023400; 03023500; 03023600;	--Tunas, excluding livers and roes: albacore, yellowfin tunas, skipjack/striped bellied bonito tunas, bigeye tunas, bluefin tunas, southern bluefin tunas	30	15	2011
03023300	--Tuna (skipjack or striped bellied bonito), excluding livers and roes;	30	20	2010
03026100	--Sardines;	30	20	2010
0303	Fish, frozen, excluding fish fillets and other fish meat of heading 03.04:			
03031100	--Sockeye salmon (<i>Oncorhynchus nerka</i>)	30	15	2010
03032100; 03032200;	--Trout (<i>Salmo trutta</i>); Atlantic salmon and Danube Salmon	30	10	2014
03034100	--Tunas, excluding livers and roes: longfinned tunas	30	12	2011
03034200; 03034400; 03034500;	--Tunas, excluding livers and roes: yellowfin tunas, bigeye tunas, bluefin tunas.	30	20	2010
03034300; 03034600	--Tunas, excluding livers and roes: skipjack or striped bellied bonito; Southern bluefin tunas	30	15	2011
03037100	--Sardines;	30	20	2010
030380	-Fish, frozen, livers and roes	30	12	2012
0305	Fish, dried, salted or in brine; smoked fish, whether or not cooked before or during the smoking process; flours, meals and pellets of fish, fit for human consumption			
03052000	-Livers and roes of fish, dried, smoked, salted or in brine	30	20	2012
03054100	--Pacific salmon, Atlantic salmon and Danube salmon	30	15	2012
0306	Crustaceans, whether in shell or not, live, fresh, chilled, frozen, dried, salted or in brine, fit for human consumption			
03061100	--Rock lobster and other sea crawfish, frozen	30	15	2011
03061200	-- Lobster, frozen	30	20	2010
03061300	-- Shrimps and prawns, frozen	30	12	2011
03061400	-- Crabs, frozen	30	15	2012
030621	--Not frozen, rock lobster and other sea crawfish			
03062120	---Other, live	30	10	2012
03062130	---Fresh or chilled	30	15	2011
030622	-- Lobsters			
03062220	---Other, live	30	20	2010
03062230; 03062240	---Fresh or chilled; dried	30	20	2010
030623	Shrimps and prawns			
03062320	---Other, live	30	15	2012
03062330	---Fresh or chilled	30	15	2012
03062340	---Dried	30	20	2010
030624	Crabs, live, fresh or chilled; other	30	20	2010

Source: World Trade Organization

PRODUCTION

Over the past six years Vietnam's fisheries sector experienced rapid growth, increasing more than 64 percent since 2000 and earning Vietnam the rank of fifth largest producer of fishery products globally, after China, India, Indonesia and the Philippines. The fisheries sector plays an important role in Vietnam's national economy, where it accounted for just over 6 percent of total GDP and 19.3 percent of agriculture, fish and forest products' contribution in 2006.

Vietnam produced a total of 3,695.9 thousand metric tons (TMT) of aquatic products in 2006. Of this amount, 2,001.7 TMT or 54.2% was wild-caught (marine and inland) and 1,694.3 TMT or 45.8% was farm-raised. Marine landings can roughly be divided into three categories: high value species for export, medium value species for domestic consumption, and low value species for fishmeal for the animal feed industry. Although marine landings still have the larger share of production, aquaculture has been growing at a much faster rate, having increased over 187.4% since 2000 at an average growth rate of 19.3% per year. Fish had the largest share of production of either farming method, accounting for 74.1% of marine landings and 67.8% of aquaculture in 2006. The bulk of shrimp production was done by aquaculture, which produced 77.2% of Vietnam's shrimp in 2006. (See Table 9)

Table 9: Vietnam's Total Fishery Production (in thousand metric ton)

	2000	2001	2002	2003	2004	2005	2006
Total production (TMT)	2,250.5	2,434.7	2,647.4	2,859.2	3,142.5	3,465.9	3,695.9
<i>Fish</i>		1729.3	1839.6	1,980.9	2,229.5	2,469.0	2,633.1
<i>Shrimp</i>		249.19	281.19	340.7	388.9	435.1	459.3
<i>Others</i>		456.21	526.61	537.6	524.1	561.8	603.5
Caught aquatic products (TMT)	1,660.9	1,724.8	1,802.6	1,856.5	1,940	1,987.9	2001.7
<i>Fish</i>	1,075.3	1,309.0	1,353.2	1,376.4	1,467.9	1,497.9	1,485.1
<i>Shrimp</i>		94.3	95.0	102.9	107.1	107.9	104.7
<i>Others</i>		321.5	354.4	377.2	365.0	382.1	411.9
Farmed aquatic products (TMT)	589.6	709.9	844.8	1,003.1	1,202.5	1,478	1,694.3
<i>Fish</i>	391.1	421.0	486.4	604.4	761.6	971.2	1,148
<i>Shrimp</i>	93.5	154.9	186.2	237.9	281.8	327.2	354.6
<i>Others</i>	105.0	134.0	172.2	160.8	159.1	179.6	191.6

Source: General Statistics Office (GSO), Ministry of Fisheries (MOFi)

Wild Catch

Marine

Marine fishing in Vietnam is mostly done by small craft, near or around coastal areas. Signs of stress due to overexploitation are becoming evident in these areas, where several species are now seriously over-fished. To stem the tide, Vietnam has implemented such measures as the coastal fisheries restructure policy, which seeks to promote more off-shore fishing and aquaculture as well as occupation shifts to other fields, such as trading, logistics, tourism, and entertainment services. Offshore fishing generally occurs in depths of 30 meters or more in the waters of the Gulf of Tonkin and the Gulf of Thailand and depths of 50 meters or more in the waters off Central Vietnam. Offshore fishing currently accounts for about 34 to 40 percent of total wild catch.

Of the more than 2,000 fish species in the waters off Vietnam, 130 species have been identified for economic exploitation. The latest evaluation estimates total marine fish stock

at 4.2 million tons. Annual allowable catch is set at 1.7 million tons, which includes 850,000 tons of demersal fish, 700,000 tons of small pelagic fish and 120,000 tons of oceanographic pelagic fish. In addition to marine fish, there are some 1,600 species of crustaceans (marine shrimps, lobsters, slipper lobsters, crabs, mud crabs, etc.) of which 50,000-60,000 tons may be caught each year. There are also over 2,500 species of mollusks (squids and octopus) for which the allowable catch each year is 60,000-70,000 tons.

Freshwater catch (Inland fishing)

Total inland catch ranges from about 200,000 - 250,000 tons per year and offers key sources of subsistence food for local consumption as well as other valuable products. Vietnam has over 200,000 ha of lakes, most of which are man-made reservoirs, with only 10% being natural lakes. Total catch from lakes is estimated at about 9,000 tons a year, with 4,000 tons coming from natural lakes and 5,000 tons from reservoirs. Seasonal flooding also contributes to annual freshwater production. During the rainy season in the Mekong Delta numerous pools of flooded land, some as large as 140,000 ha (in Dong Thap Muoi) and 218,000 ha (in Long Xuyen Quadrangle Areas) abound. These pools are ideal places for fishing in the rainy season when many fish species migrate from the Mekong River system. In just these two flooded areas alone over 20,000 tons of fish are caught each year.

The fish resources in the rivers of the North and Central Vietnam have been over-fished due to a lack of protection measures. The interlacing channel system in the South produces a significant quantity of freshwater fish. About 30,000 tons of commercial catch comes from the Mekong River each year.

Aquaculture

Aquaculture has made significant progress in Vietnam in recent years, increasing in market share from 26.2% of total fisheries' production in 2000 to an estimated 46% in 2006. This development can be attributed to a concerted effort to not only expand the production area but also improve production techniques. Specifically, focus was given to developing cultures of local species, improving the efficiency of growing methods, and developing areas for intensive aquaculture farming.

Vietnam's aquaculture uses marine, brackish and fresh waters, all of which are widely available throughout much of the country. In 2006, the total area of water surface used for aquaculture in Vietnam was 1,050 thousand ha, which represents a 64% enlargement over the 641.9 thousand ha used in 2000. A variety of species are cultivated in these waters, but shrimp and catfish are by far the most prevalent.

Freshwater culture

Small ponds, seasonal flooded areas, lakes and low-lying paddy fields are the typical areas for fresh-water cultures. In these areas such fish species as grass carp, common carp, mud carp, silver carp, common silver barb, tilapia, catfish and crossbred catfish are raised. High-value targeted species such as "tra", "basa" catfish, tilapia, grass carp, hybrid carp and rohu are raised in cages in rivers, streams and reservoirs. Low-lying paddy fields and flooded areas are favored for rearing shrimp and giant river prawns. Crop rotation and intercropping of fish and shrimp in paddy fields has proved beneficial to crop restructuring as well as improved outputs and incomes. Typically 1ha of pond culture yields about 3 tons of "tra" catfish, but with advanced techniques it may yield up to 300 tons/ha per year.

River Catfish (*Pangasianodon hypophthalmus*) is the most popular freshwater culture fish. Production of river catfish has been increasing at a rapid rate as more and more farmers respond to growing international demand. Total annual production increased from 400,000 mts in 2004 to 600,000 mts in 2005 and a record 800,000 mts in 2006. Output for 2007 is projected to increase to a new record of 1 million mt.

Brackish-water culture

Brackish-water aquaculture farming entails hatching and rearing aquatic species whose final growth stage takes place in brackish water. Cultured species include shrimp, sea perch, grouper and conger. Popular production methods are mono cropping one species, intercropping among various species, crop rotation or culture of fish in mangrove forests. Organic shrimp farming practices (raising shrimp in essentially natural conditions without using chemicals, antibiotics, and stimulants) has been recently introduced in the Mekong River Delta.

Marine Culture

Marine aquaculture farming entails hatching and raising aquatic species whose final growth stage takes place in marine waters. Vietnam's primary marine culture species are shrimp, lobster, marine fish (grouper, cobia, snapper, sea bream and trevally) and mollusks (clam, granular ark, areola Babylon and pearl oysters). In Vietnam, marine aquaculture is farmed mainly in cages and rafts submerged in marine waters along the coastline and in tidal areas. The growth potential for this farming method is enormous, given Vietnam's extensive coastline. Great strides have already been made with several species (e.g. lobsters, cobia, grouper and pearl oysters) and efforts are underway to expand this type of aquaculture farming. One such effort is the expansion of the marine production area through the use of waterproof materials to cover sandy and marshy land deemed unfit for other agricultural activities.

Seed production system

Vietnam is able to artificially produce seeds for most of its traditional freshwater cultured species and is therefore able to meet most of the seed demand of its aquaculture industry. Available data indicate that in 2001, there were 447 hatcheries with an overall production level of 7.987 million seeds. Undoubtedly seed production capacity and output have grown since then. Vietnam also imported a number of high-value species such as silver pomfret, monosex tilapia, hybrid carp and red drum for trial culture. Attempts have also been made in hatching and spawning rare and high-valued fish such as yellow mystus, and conger as well as marine varieties such as cobia and grouper.

Fish seed production technology in hatchery was developed in the 1970's for the river catfish of the Mekong Delta, which until then had been cultured by small-scale traditional methods. Once the river catfish was introduced to the international market, demand for seedling soared and numerous catfish hatcheries were established in the Mekong Delta. Well over a billion fingerlings have been produced, and current concerns now focus on improving seed quality.

The giant tiger prawn artificial seed supply has been less than satisfactory, both in terms of quantity and quality, which is reportedly deficient due to a lack of high quality, disease-free brood stock. Latest available data from 2001 indicate that there were 4,077 giant tiger prawn hatcheries then, with an annual production of about 16 billion shrimp seeds.

Aquatic feed

Reports are that the aquatic feed industry is scrambling to keep pace with increased demand for commercially made feed from the booming aquaculture industry in the Mekong Delta. Latest available statistics indicate that Vietnam's 39 industrial aquatic feed producers in 2001 had a production capacity of about 50,000 tons per year. This would only satisfy about 40% of today's aquaculture feed demand. More and more the trend among farmers is to replace traditional home-made feed with industrial feed, hence the higher demand for industrial fish feed. Many feed companies now have plans to install additional production lines to increase productivity. Also under consideration is the possibility of including better efficiencies of feed formulations and the development of substitute grain-based feeds. Cargill Vietnam opened a new aqua feed factory in March 2007, with a capacity of 60,000 MT of feed product per year.

Fleet

Reports are that Vietnam has been increasing its fishing fleet for offshore fishing. Latest available statistics indicate a 106 percent increase in fleet size from 2000 to 2005, for a total fleet of 20,118 boats, with total capacity of 2,923.8 HP. Most boats in the fleet are said to be privately owned and state fisheries activities are reportedly waning. The total number of fishing boats, nationwide, is estimated at 96,000. However, many of these boats are equipped with very rudimentary machines and preservation technologies often include chemicals that lead to food safety issues for consumers.

According to Vietnam's master plan for the fisheries sector, by 2010, the fishing fleet should total 50,000 vessels. Of this number, 6,000 vessels will have engine power of 75 HP or greater; 14,000 vessels will have engine power of 46-75 HP; 20,000 vessels will have engine power of 21-45 HP and 10,000 vessels will have engine power of 20 HP or less.

Fishery Processing

Vietnam reportedly has 470 seafood processing plants, 296 of which produce frozen seafood products, 32 produce preserved, dry seafood products, 9 produce canned seafood products and 17 plants produce fish meal for the animal feed industry. Seventy percent of these plants are located in southern Vietnam, 24 percent are in central Vietnam and 6 percent are in the North. About 246 plants are qualified to export to the European Union, and over 200 plants operate under the HACCP system. Several previously state-owned plants have converted to joint stock companies or other non-state ownership structure. State-owned plants are mainly engaged in packing marine-caught shrimp, squid and cuttlefish, all of which is exported. The private fish canning factories are engaged chiefly in processing farmed shrimps for export.

Domestic processing and consumption of aquatic products have increased in recent years as the domestic industry benefited from development advances in the cold storage industry. Previously, all processed seafood for domestic consumption was imported and few could afford it. Today, several plants focus on processing for the domestic market, which now consume a wide variety of fishery products. Many plants also focus on processing for the export market. The latest available data show 272 plants in 2001 specialized in export-oriented processing, with an annual input requirement of 500,000 tons/year.

Vietnam's seafood/fishery industry has invested heavily into improving technologies and preparing for international trade. Many of the larger plants have acquired the food safety certifications of their major trading partners, and some have been applying product quality

controls like HACCP, GMP and SSOP. Still, there persist a number of processing plants with food safety and environmental pollution problems.

The industry employs such advanced technologies as post-harvest preservation, surimi production, winter-sleep (hibernation), and individual quick-freezing (IQF) in its export processing plants. All processing plants reportedly have at least one cold storage and cool storage to preserve products before processing. Vietnam currently has 643 cold storages and 146 cool storages.

Master Plan for Development of the Fisheries Sector through 2010

On January 11, 2006, the Prime Minister approved Decision No. 10/2006/QĐ-TTg on the Master Plan for development of the fisheries sector through 2010. Two key goals of the plan are to maintain an average production growth rate of 3.8% per year and an average growth in export value of 10.63% per year. The goal for production output is set at 3.5 to 4 million metric tons per year, of which cultured aquatic production should be about 2 million metric tons and marine caught products should be at least 1.5-1.8 million tons. An ultimate goal of this Plan is to achieve export earnings of \$4.0 to 4.5 billion for this sector.

TRADE

Exports

Vietnam's fishery product exports have increased considerably since 2000 to become a major income earner and one of Vietnam's major export commodities. Aquatic exports earned over \$1 billion in 2000, \$ 2.2 billion in 2003 and \$3.36 billion in 2006. Total export volume for 2006 was 811.5 thousand metric tons, a 29.4% increase over 2005. Catfish and shrimp are by far the largest share of aquatic exports, accounting for over 22% and 44%, respectively, of total export earnings in 2006. Currently Vietnam exports fishery products to over 75 countries and territories on five continents. Japan and the United States are the two largest export destinations, by country, while European Union nations, as a group, had the largest share of exports by volume and the second largest share by value in 2006. Exports are projected to reach \$3.6 billion in 2007. Figures for the first quarter of 2007 indicate an increase of 20.4 percent in exports over the same period in 2006. (see Tables 10 and 11)

Table 10: Vietnam's Fishery Exports by Product

	2005		2006		2007 (Jan-Mar)	
	Volume (MT)	Value (\$000)	Volume (MT)	Value (\$000)	Volume (MT)	Value (\$000)
Frozen Shrimp	159,243	1,371,380	158,447	1,460,586	23,369	236,858
Chilled/Frozen Fish	274,602	687,720	444,709	1,145,086	117,183	315,101
<i>In which. Cat fish</i>	140,703	328,082	286,600	736,872	80,851	206,338
Tuna	29,761	81,173	44,822	117,133	11,677	34,075
Frozen Cephalopods	61,956	182,198	69,763	222,190	16,415	53,515
Dried Aqua products	35,910	130,300	35,479	142,195	8,777	33,249
Others	95,210	367,200	103,112	378,234	20,683	76,938
Total	626,921	2,738,798	811,510	3,348,291	186,427	715,661

Source: VASEP

Vietnam's Primary Fishery Export Products in 2006
(value basis)

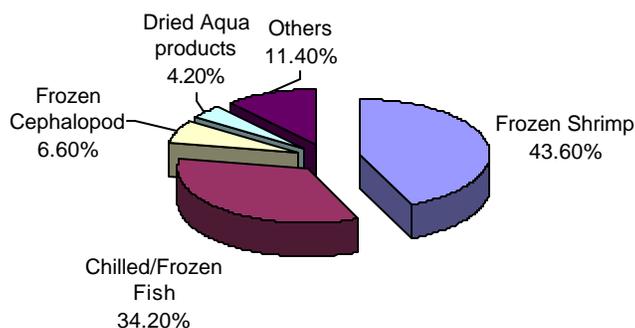
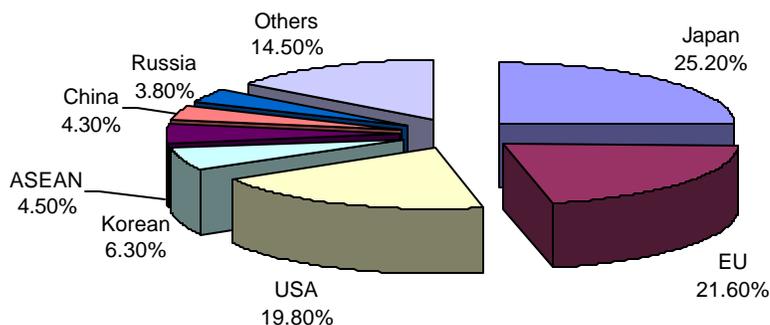


Table 11: Vietnam's Fishery Exports by Markets

Country	2005		2006		2007 (Jan-Mar)	
	Volume (MT)	Value (\$000)	Volume (MT)	Value (\$000)	Volume (MT)	Value (\$000)
Japan	127,721	813,334	123,889	842,614	19,332	121,722
EU	130,699	436,635	219,967	723,505	55,926	174,635
USA	91,643	633,912	98,883	664,340	18,152	131,036
Korea	75,469	162,283	84,903	210,319	20,366	53,289
ASEAN	48,268	123,233	60,335	150,961	14,854	41,678
China	47,519	134,416	48,470	145,573	11,107	36,855
Australia	21,757	96,781	24,303	126,493	4,373	21,710
Russia	13,130	33,624	58,705	126,393	16,820	37,239
Taiwan	34,643	121,678	30,623	99,289	6,559	22,097
Others	36,072	182,900	61,432	258,804	18,938	75,401
Total	626,921	2,738,798	811,510	3,348,291	186,427	715,661

Source: VASEP

Vietnam's Fishery Products Export Market, 2006
(value basis)



In 2003, Vietnam's fishery exports to the United States soared to \$730.7 million, increasing 18.4 percent over the previous year. In 2004 exports were much reduced as a result of U.S. anti-dumping actions against Vietnam. Since then Vietnam's fishery exports to the United States have been increasing, though at a somewhat less rapid pace. Fishery exports to the United States in 2006 were valued at \$651.8 million, a 3.7 percent increase over the previous year. Shrimp exports of 35,414 metric tons accounted for over 65.9% of this amount. (see Table 12)

High drug residue levels have also been a factor in the reduction in Vietnam's fishery exports to the United States. Vietnam's seafood industry has been working with the U.S. Food and Drug Administration and Vietnam's Ministry of Fisheries to remedy this. Significant progress has been made in reducing residue levels over the past year and the effort continues.

Table 12: Vietnam's Fishery Product Exports to the United States

Unit: \$000

Product	2002	2003	2004	2005	2006	2007 (Jan.-Mar.)
Shrimp	481,529	595,012	386,288	443,185	429,780	79,071
Tuna	29,486	31,498	39,242	42,353	44,605	21,719
Lobster	0	139	140	0	603	606
Ground fish, Fillet/steak	0	347	0	5	0	2
Other edible fish & seafood	106,105	103,690	140,187	143,150	176,791	38,406
Total Fishery Products	617,121	730,686	565,858	628,692	651,779	139,805

Source: BICO, U.S Bureau of the census trade data

Imports

Vietnam, even as a major seafood exporting country, must import some live and processed fishery products for use in its export industry and for domestic consumption. In 2006, Vietnam imported fish and fishery products valued at \$95.8 million, up 16.2 percent from 2005. In just the first four months of 2007, fisheries imports totaled \$70.6 million, which is 73.7% of the total for 2006. This suggests that imports will have a sharp increase in 2007. Strong demand from the domestic market and the processing industry, particularly for fish and crustaceans is believed to be driving the rise in imports. Much of the increase in domestic demand comes from the hotel and restaurant industry as well as supermarkets. (see Tables 13 and 14)

Vietnam imports fish and fishery products from a variety of sources. China, Thailand, Indonesia, Taiwan and Malaysia provide most live fish for ornamental gardens and breeding, while live salmon is imported from Norway and the United States. Fresh, chilled and frozen fish, imported for domestic consumption, is imported from Japan, New Zealand, Australia, Norway and other countries. Vietnam also imports crustaceans (shrimp, crabs) for breeding and processing; black tiger shrimps are imported from China, Singapore and the United States for breeding, while shrimp and shrimp products for processing are usually imported from China and India.

Table 13: Vietnam's Fishery Product Imports by Commodity

HS Code	Commodities	2005 (\$)	2006 (\$)	2007 Jan-Apr. (\$)
0301	Live fish including ornamental fish and fish for breeding	793,299	322,275	109,406
0302	Fish, fresh or chilled, excluding fish fillets and other fish meat of heading 03.04	4,016,155	4,794,032	4,515,851
0303	Fish, frozen, excluding fish fillets and other fish meat of heading 0304	20,770,433	30,393,326	29,452,545
0304	Fish fillets and other fish meat, fresh, chilled or frozen	9,560,235	9,604,586	3,325,920
0305	Fish, dried, salted, smoked fish; flours, meals and pellets of fish	785,246	1,144,978	312,958
0306	Crustaceans, live, fresh, chilled, frozen, dried, salted, flour, meals and pellets of crustaceans: shrimp, crabs	39,647,903	37,468,453	25,748,238
0307	Mollusks, live, fresh, chilled, frozen, dried, salted; aquatic invertebrates other than crustaceans and mollusks; flours, meals and pellets of aquatic invertebrates other than crustaceans	6,867,795	12,088,885	7,150,069
TOTAL		82,441,066	95,816,536	70,614,987

Source: Global Trade Atlas and General Customs office of Vietnam

Table 14: Vietnam's Fishery Product Import Values, by Source Country

Source Countries	2004 (\$)	2005 (\$)	2006 (\$)	Jan-April 2007 (\$)
Spain	557,999	1,260,953	2,040,992	516,274
Malaysia	9,500,629	7,562,518	8,138,328	1,767,596
India	30,866,994	14,715,181	10,679,210	4,343,812
Singapore	1,544,735	9,559,363	6,716,756	1,863,096
New Zealand	606,715	588,798	970,367	459,821
Canada	4,476,683	7,793,604	8,748,766	5,624,797
Denmark	2,316,446	5,090,733	3,860,240	2,316,121
United States	5,576,635	5,317,518	7,181,610	2,600,871
Thailand	3,303,356	9,017,899	10,676,160	6,769,769
Norway	4,056,656	5,514,280	10,861,904	5,335,352
Chile	1,522,614	3,455,450	5,691,302	2,316,357
China	14,750,384	10,483,486	6,096,946	2,459,399
Other countries		2,081,281	14,153,955	34,241,722
Total	79,079,846	82,441,064	95,816,536	70,614,987

Source: Global Trade Atlas and General Customs office of Vietnam

In 2006, Vietnam imported over 10.3% of its fishery product imports from the United States. Whole or eviscerated salmon was the largest single fish import, and accounted for 42.1% of Vietnam's total fishery imports from the United States.

Table 15: Vietnam's Fishery Product Imports from the United States

(\$000)

Product	2002	2003	2004	2005	2006	2007 (Jan - Mar)
Salmon, whole or eviscerated	438	102	1,091	721	2,500	0
Salmon, canned	0	0	47	12	33	0
Crab & crabmeat	0	117	928	1,138	53	156
Roe & urchin (fish eggs)	6,045	0	463	0	460	412
Other edible fish & seafood	1,318	1,108	1,968	1,294	2,888	570
TOTAL	7,802	1,326	4,497	3,164	5,934	1,138

Source: BICO, U.S Census Bureau trade data

CONSUMPTION

Fishery products are a major source of protein for people in Vietnam. On average, Vietnamese get about half their dietary protein from different types of aquatic products. With the rapid growth and improvement in Vietnam's economy in recent years, per capita income has increased considerably. From 2000 to 2006, per capita income rose 80.8% to \$687, thus providing consumers with greater buying power. With improved incomes, diets also improve and more protein-rich food is consumed. The results of surveys on Vietnamese households' living standards (VHLS) conducted by Vietnam's General Statistics Office in 2002 and 2004 support the claim of increased consumption of seafood per capita. Consumption of fish and seafood increased much more than any of the other sources of protein (see table 16).

Table 16: Protein Source Foods, Consumption per capita

Protein Sources	Unit	2002	2004	% Change
Meat (all kinds)	Kg	15.36	16.56	7.81
Animal fat, vegetable	Kg	2.76	3.24	17.39
Shrimps and fish	Kg	13.56	17.04	25.66
Eggs (all kinds)	Piece	26.64	28.92	8.56
Tofu	Kg	4.32	4.80	11.11

Source: GSO Surveys on Vietnamese household living standard in 2002 & 2004

POLICY

Vietnam's Seafood Import Requirements

Imported fishery products must be registered and tested for quality and safety in compliance with the Prime Minister's Decision No. 50/2006/QD-TTg of March 7, 2006. Only imported consignments with health certificates issued by the National Fisheries Quality Assurance and Veterinary Directorate (NAFIQAVED) or its branches may be further processed or placed on the market. The Decision provides an updated list of imported and domestic products subject to inspection by authorized bodies (including technical institutions appointed by the Ministry of Science and Technology). Fodder for aquaculture and aquaculture products (e.g. shellfish) are

among the goods subject to quality control. The Decision also provides standards for microbiology and chemical tolerances and testing methods.

The Ministry of Health's Decision No. 867/1998/QDD-BYT, dated April 4, 1998, offers a list of microbiological criteria limitations for fishery products.

As of March 10, 2007, all companies allowed to export fishery products to Canada and the United States no longer need to obtain quality control certificates from NAFIQAVED. Shipments will continue to be tested, however, in accordance with the requirements of importing countries.

OTHER INDUSTRY ACTIVITIES

- Two more Vietnamese seafood exporters were granted international food safety certificates by the Global Aquaculture Alliance (GAA). Sao Ta Foods and Viet Hai Seafood now join the six other seafood companies in Vietnam that have received GAA's Best Aquaculture Practices (BAP) certification. The GAA is a non-profit trade association dedicated to ensuring responsible fish and shellfish farming and conservation of environmental and social resources. Presently, BAP is only applied to shrimp products. It standardizes hygiene and products' sources of origin. Once certified, businesses are permitted to use the BAP stamp on packaging and in advertisements of their products.

- CATFISH 2007, the first-ever global conference on the catfish farming industry, was held in conjunction with VIETFISH 2007, the Vietnam Fisheries' International Exhibition, held in June 2007 in Ho Chi Minh City (HCMC). These events were platforms to explore business opportunities and expand business networks, while learning about the catfish industry and Vietnam's tra/basa species. Vietnam Association of Seafood Exporters and Producers (VASEP) arranged a field trip to a catfish farming center and processing plant near HCMC, which offered participants an opportunity to observe and experience this dynamic and bustling industry. VIETFISH 2007, at the HCMC International Exhibition and Convention Center, attracted participants from around the world with 200-300 booths of local and overseas companies.